



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,516	08/24/2001	John B. Harvey	26346-1	2442
22493	7590	06/22/2004	EXAMINER	
BOARDMAN, SUHR, CURRY & FIELD LLP ATTN: IP PRACTICE GROUP 1 SOUTH PINCKNEY STREET, FOURTH FLOOR P.O. BOX 927 MADISON, WI 53701-0927			FERGUSON, MICHAEL P	
		ART UNIT		PAPER NUMBER
		3679		
DATE MAILED: 06/22/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/939,516	HARVEY, JOHN B.
	Examiner Michael P. Ferguson	Art Unit 3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 16 January 2004.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1,2,4,5,7-12,14,15 and 17-23 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 20-23 is/are allowed.
 6) Claim(s) 1,2,4,5,7-12,14,15 and 17-19 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 24 August 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 01/26/04.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 10 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Solberg et al. (US 5,085,535).

As to claim 10, Solberg et al. disclose a slitter apparatus having:

a first semi-circular member **26** having a first mating surface **34**;

a second semi-circular member **28** having a second mating surface **52**

engageable with the first mating surface to form a cylindrical body;

a rectangular land **40** projecting from the first mating surface of the first semi-circular member wherein the land has no more than one planar surface substantially parallel to the first mating surface (land **40** has only one planar surface); and

a rectangular recess **58** protruding into the second mating surface of the second semi-circular member wherein the recess has no more than one planar surface substantially parallel to the second mating surface (recess **58** has only one planar surface) and wherein engagement of the land with the recess provides both axial and radial alignment of the first semi-circular member with the second semi-circular member (Figures 1-4).

As to claim 17, Solberg et al. disclose a slitter apparatus wherein a rectangular land **40** is centrally disposed on a first mating surface **34** and a rectangular recess **58** is centrally disposed in a second mating surface **52** (Figure 4).

As to claim 18, Solberg et al. disclose a slitter apparatus wherein a rectangular land **40** is integral with a first mating surface **34** (Figure 2).

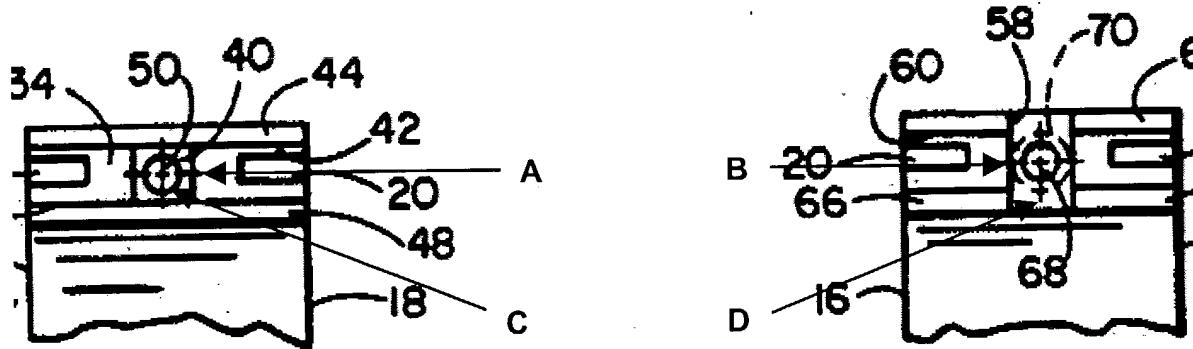
As to claim 19, Solberg et al. disclose a slitter apparatus having:
a first semi-circular member **26** having a first mating surface **34**;
a second semi-circular member **28** having a second mating surface **52**
engageable with the first mating surface to form a cylindrical body;
a land **40** projecting from the first mating surface wherein the land is centrally disposed inward from the outer edges **16,18** of the first mating surface (disposed in a region between edges **16,18**) such that upon engagement of the first semi-circular member with the second semi-circular member, the land is hidden inside of the cylindrical body (land **40** is within the interior of the cylindrical body);

a recess **58** projecting into the second mating surface wherein the recess is centrally disposed inward from the outer edges **16,18** of the second mating surface (disposed in a region between edges **16,18**) such that upon engagement of the first semi-circular member with the second semi-circular member, the recess is hidden inside of the cylindrical body (recess **58** is within the interior of the cylindrical body);

wherein the land has a first pair **A** (Figures 5 and 6 reprinted below with annotations) of planar alignment surfaces;

wherein the recess has a second pair **B** of planar alignment surfaces complimentary to the first pair of planar alignment surfaces wherein contact of the first pair of planar alignment surfaces with the second pair of planar alignment surfaces when the land is received in the recess provides axial alignment of the first semi-circular member with the second semi-circular member;

wherein the land has a third pair **C** of planar alignment surfaces; and
wherein the recess has a fourth pair **D** of planar alignment surfaces complimentary to the third pair of planar alignment surfaces wherein contact of the third pair of planar alignment surfaces with the fourth pair of planar alignment surfaces when the land is received in the recess provides radial alignment of the first semi-circular member with the second semi-circular member (Figures 1-6).



Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2. 4. 5. 8, 9, 11, 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Solberg et al. in view of Howard (US 4,964,842).

As to claim 1, Solberg et al. disclose a slitter apparatus having:

a first semi-circular member **26** having first and second mating surfaces **34**;

a second semi-circular member **28** having first and second mating surfaces **52**

complimentary to the opposed first and second mating surfaces of the first member;

wherein the first member is engageable with the second member to form on

engagement a cylindrical body;

a first rectangular land **40** having a plurality of sidewall surfaces projecting from

one of the first or second mating surfaces of the first member;

a first rectangular recess **58** having a plurality of sidewall surfaces projecting into

one of the first or second mating surfaces of the second member;

wherein the first rectangular recess is interengageable with the first rectangular

land to provide axial and radial alignment of the first member with the second member

(Figures 1-4).

Solberg et al. fail to disclose a slitter apparatus wherein the corners formed between adjacent sidewall surfaces of a first rectangular land are radiused.

Howard teaches an apparatus having:

a first semi-circular member **13** having first and second mating surfaces;

a second semi-circular member **15** having first and second mating surfaces

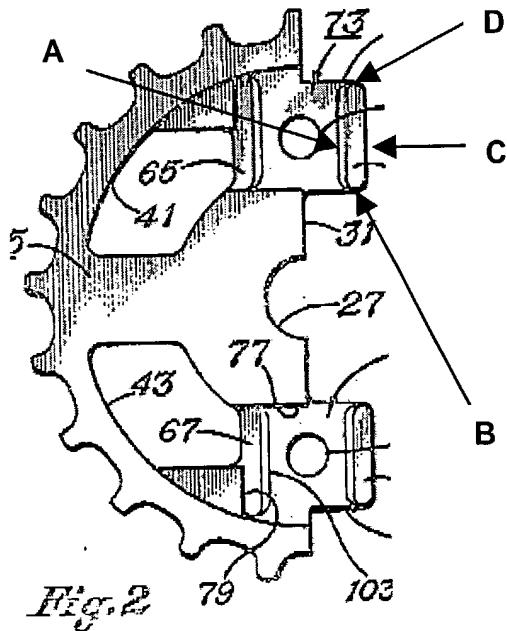
73,75 complimentary to the opposed first and second mating surfaces of the first member;

wherein the first member is engageable with the second member to form on engagement a cylindrical body;

a first rectangular land **61,63** having a plurality of sidewall surfaces **A,B,C,D** (Figure 2 reprinted below with annotations) projecting from one of the first or second mating surfaces of the first member wherein the corners formed between adjacent sidewall surfaces of the first rectangular land are radiused;

a first rectangular recess **65,67** having a plurality of sidewall surfaces projecting into one of the first or second mating surfaces of the second member;

wherein the first rectangular recess is interengageable with the first rectangular land to provide axial and radial alignment of the first member with the second member; the radiused corners of the land providing for easier alignment of and insertion of the land into the recess (Figures 1-4).



Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a slitter apparatus as disclosed by Solberg et al. to have a first rectangular land having radiused corners as taught by Howard in order to provide easier alignment of and insertion of the land into a corresponding recess.

As to claim 2, Howard teaches an apparatus wherein corners formed between adjacent sidewall surfaces of a first rectangular recess **65,67** are radiused (Figure 2).

As to claim 4, Howard teaches an apparatus wherein corners formed between adjacent sidewall surfaces of a first rectangular recess **65,67** are radiused (Figure 2).

Solberg et al. in view of Howard fails to disclose a slitter apparatus wherein corners formed between adjacent sidewall surfaces of a first rectangular recess are chamfered.

The applicant is reminded that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a slitter apparatus as disclosed by Solberg et al. in view of Howard to have chamfered corners formed between adjacent sidewall surfaces of a first rectangular recess as such practice is a design consideration within the skill of the art.

As to claim 5, Solberg et al. disclose a slitter apparatus having:
a second rectangular land **40** having a plurality of sidewall surfaces projecting from the other of a first or second mating surfaces **34** of a first member **26**;

a second rectangular recess **58** having a plurality of side wall surfaces projecting into the other of a first or second mating surfaces **52** of a second member **28**;

wherein the second rectangular recess is interengageable with the second rectangular land to provide axial and radial alignment of the first member with the second member (Figures 1-4).

As to claim 8, Solberg et al. disclose a slitter apparatus wherein a first rectangular land **40** is centrally disposed inward from the outer edges **16,18** of a mating surface **34** (disposed in a region between edges **16,18**) from which it projects and wherein a first rectangular recess **58** is centrally disposed inward from the outer edges **16,18** of a mating surface **52** (disposed in a region between edges **16,18**) into which it projects such that upon engagement of the first member with the second member, the first rectangular land and the first rectangular recess are completely enclosed inside of the cylindrical body (land **40** and recess **58** are within the interior of the cylindrical body; Figures 1 and 4).

As to claim 9, Solberg et al. disclose a slitter apparatus wherein a first land **40** is integral with a mating surface **34** from which it projects (Figure 4).

As to claim 11, Solberg et al. fail to disclose a slitter apparatus wherein a land has a plurality of sidewall surfaces projecting from a first mating surface wherein the corners formed between adjacent sidewall surfaces of the rectangular land are chamfered.

Howard teaches an apparatus wherein a land **61,63** has a plurality of sidewall surfaces **A,B,C,D** projecting from a first mating surface **73,75** wherein the corners

formed between adjacent sidewall surfaces of the rectangular land are radiused; the radiused corners of the land providing for easier alignment of and insertion of the land into a corresponding recess (Figures 1-4).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a slitter apparatus as disclosed by Solberg et al. to have a land having radiused corners as taught by Howard in order to provide easier alignment of and insertion of the land into a corresponding recess.

The applicant is reminded that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a slitter apparatus as disclosed by Solberg et al. in view of Howard to have chamfered corners formed between adjacent sidewall surfaces of a land as such practice is a design consideration within the skill of the art.

As to claim 12, Howard teaches an apparatus wherein a recess **65,67** has a plurality of side wall surfaces projecting into a second mating surface wherein the corners formed between adjacent side wall surfaces of the rectangular recess are radiused (Figure 2).

Solberg et al. in view of Howard fails to disclose a slitter apparatus wherein corners formed between adjacent sidewall surfaces of a rectangular recess are chamfered.

The applicant is reminded that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a slitter apparatus as disclosed by Solberg et al. in view of Howard to have chamfered corners formed between adjacent sidewall surfaces of a rectangular recess as such practice is a design consideration within the skill of the art.

As to claim 14, Solberg et al. fail to disclose a slitter apparatus wherein a land has a plurality of sidewall surfaces projecting from a first mating surface wherein the corners formed between adjacent sidewall surfaces of the rectangular land are radiused.

Howard teaches an apparatus wherein a land **61,63** has a plurality of sidewall surfaces **A,B,C,D** projecting from a first mating surface wherein the corners formed between adjacent sidewall surfaces of the rectangular land are radiused; the radiused corners of the land providing for easier alignment of and insertion of the land into a corresponding recess (Figures 1-4).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a slitter apparatus as disclosed by Solberg et al. to have a land having radiused corners as taught by Howard in order to provide easier alignment of and insertion of the land into a corresponding recess.

As to claim 15, Howard teaches an apparatus wherein a recess **65,67** has a plurality of sidewall surfaces projecting into a second mating surface wherein the

corners formed between adjacent sidewall surfaces of the rectangular recess are radiused (Figure 2).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Solberg et al. in view of Howard as applied to claim 1 above, and further in view of Blanchfield et al. (US 5,531,536).

As to claim 7, Solberg et al. disclose a slitter apparatus having:
a second rectangular land **40** having a plurality of sidewall surfaces projecting from the other of a first or second mating surface **34** of a first member **26**;
a second rectangular recess **58** having a plurality of sidewall surfaces projecting into the other of a first or second mating surfaces **52** of a second member **28**;
wherein the second rectangular recess is interengageable with the second rectangular land to provide axial and radial alignment of the first member with the second member (Figure 4).

Solberg et al. in view of Howard fails to disclose a slitter apparatus having:
a second rectangular land projecting from the other of a first or second mating surface of a second member; and
a second rectangular recess projecting into the other of a first or second mating surfaces of a second member.

Blanchfield et al. teach a slitter apparatus having:
a second rectangular land **20** having a plurality of sidewall surfaces projecting from the other of a first or second mating surface of a second member **14**;

a second rectangular recess **24** having a plurality of sidewall surfaces projecting into the other of a first or second mating surfaces of a first member **12**;

wherein the second rectangular recess is interengageable with the second rectangular land to provide axial and radial alignment of the first member with the second member; the location of the second land on the second member and second recess on the first member enabling the first and second members to be interengaged with one another in only one orientation, thus assuring proper assembly of the two members (Figures 1-3, column 1 lines 39-45, column 3 lines 8-14, column 4 lines 10-13).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a slitter apparatus as disclosed by Solberg et al. in view of Howard to have a second rectangular land projecting from the other of a first or second mating surface of a second member; and a second rectangular recess projecting into the other of a first or second mating surfaces of a second member as taught by Blanchfield et al. in order to enable the first and second members to be interengaged with one another in only one orientation, thus assuring proper assembly of the two members.

Allowable Subject Matter

6. Claims 20-23 are allowed.

Response to Arguments

7. Applicant's arguments filed January 6, 2004 have been fully considered but they are not persuasive.

As to claim 1, Attorney argues that:

Howard does not teach an apparatus having a first rectangular land *wherein the corners formed between adjacent sidewall surfaces of the first rectangular land are radiused.*

Examiner does not agree. As to claim 1, Howard teaches an apparatus having a first rectangular land **61,63** wherein the corners formed between adjacent sidewall surfaces **A,B,C,D** of the first rectangular land are radiused (Figure 2).

As to claim 10, Attorney argues that:

Solberg et al. do not disclose a slitter apparatus comprising:
a rectangular land wherein the land has no more than one planar surface substantially parallel to the first mating surface; and
a rectangular recess wherein the recess has no more than one planar surface substantially parallel to the second mating surface.

Examiner does not agree. As to claim 10, Solberg et al. disclose a slitter apparatus comprising:

*a rectangular land **40** wherein the land has no more than one planar surface substantially parallel to the first mating surface (land **40** has only one planar surface); and*

*a rectangular recess **58** wherein the recess has no more than one planar surface substantially parallel to the second mating surface (recess **58** has only one planar surface; Figure 4).*

As to claim 19, Attorney argues that:

Solberg et al. do not disclose a slitter apparatus comprising:
a land wherein the land is centrally disposed inward from the outer edges of the first mating surface such that upon engagement of the first semi-circular member with the second semi-circular member, the land is hidden inside of the cylindrical body; and
a recess wherein the recess is centrally disposed inward from the outer edges of the second mating surface such that upon engagement of the first semi-circular member with the second semi-circular member, the recess is hidden inside of the cylindrical body.

Examiner does not agree. As to claim 19, Solberg et al. disclose a slitter apparatus comprising:

a land **40** wherein the land is centrally disposed inward from the outer edges **16,18** of the first mating surface (disposed in a region between edges **16,18**) such that upon engagement of the first semi-circular member with the second semi-circular member, the land is hidden inside of the cylindrical body (land **40** is within the interior of the cylindrical body);

a recess **58** wherein the recess is centrally disposed inward from the outer edges **16,18** of the second mating surface (disposed in a region between edges **16,18**) such that upon engagement of the first semi-circular member with the second semi-circular member, the recess is hidden inside of the cylindrical body (recess **58** is within the interior of the cylindrical body; Figures 2-4).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (703)308-8591. The examiner can normally be reached on M-F (7:30-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703)308-2686. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MPF

MPF

06/07/04

Daniel P Stodola

DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600